



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

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06/13/02
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Applicant : Anderson et al.
Appl. No. : 09/663,963
Filed : 09/19/00
Title : IMPROVED FERMENTATION PROCESS

Grp./A.U. : 1651
Examiner : K. Srivastava

Docket No. : M6560 OS/OAPT

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CERTIFICATE OF MAILING

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Marlene Capreri

Typed or printed name of certifier

Commissioner for Patents
Washington, DC 20231

BRIEF ON APPEAL UNDER 37 C.F.R. 1.192

Sir:

REAL PARTY IN INTEREST

The real party in interest is Cognis Corporation, 2500 Renaissance Blvd., St. 200, Gulph Mills, PA 19406.

RELATED APPEALS AND INTERFERENCES

None.

STATUS OF CLAIMS

Claims 1-3, 6-7 and 10-13 are the subject of this appeal.

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STATUS OF AMENDMENTS

No amendments were made after final rejection.

SUMMARY OF THE INVENTION

Briefly stated, the present invention is directed to a fermentation medium used for making aliphatic-polycarboxylic acids, wherein the medium contains: (a) a source of metabolizable carbon and energy; (b) a source of inorganic nitrogen, (c) a source of phosphate, (d) a metal, and (e) a source of biotin which is substantially free of both particulate matter and bacteria. See page 3, lines 1-10 of the application.

ISSUES

Whether claims 1-3, 6-7 and 10-13 are anticipated under 35 U.S.C. § 102(b) by Shirai et al., US Patent No. 5,618,708.

GROUPING OF THE CLAIMS

The claims stand and fall together.

ARGUMENT

Shirai '708 fails to anticipate the claimed invention on the grounds that it fails to disclose each and every element thereof.

Initially, Appellant would like to note that it is well settled that a factual determination of anticipation requires the disclosure, in a single reference, of each and every element of a claimed invention, and an Examiner must identify wherein each and every facet of the claimed invention is disclosed in the applied reference. See, In re Levy, 17 USPQ2d 1561 (Bd. Pat. App. & Inter. 1990).

Appellant has maintained throughout the prosecution of this application that the Shirai reference fails to anticipate the claimed invention on the grounds that it fails to

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disclose each and every element thereof. More particularly, the Shirai reference fails to disclose the use of a source of biotin **substantially free of both particulate matter and bacteria**, which is an element of the claimed invention.

In response thereto, the Examiner contends that, "...it is common knowledge in the microbiological art that a culture medium is sterilized prior to inoculating it with a particular organism." See, *Paper No. 14*, page 2. On the basis of this premise, the Examiner has maintained his anticipation rejection of the present invention. Appellant respectfully submits, however, that both the premise and the resultant conclusion are defective for the following reasons.

First, the Examiner has failed to provide any evidence in support of the above-referenced statement relating to the automatic sterilization of culture mediums prior to inoculation. It has been held that, "The Patent Office ... may not, because it may **doubt** that the invention is patentable, resort to speculation, unfounded assumptions or hindsight to supply deficiencies in its factual basis." See, In re Warner, 154 USPQ 173, 178 (CCPA 1967). Clearly, the Examiner's premise is based on nothing more than assumption and speculation based upon the facts contained in the record. To state that it is well known to sterilize culture medium prior to inoculation, apparently under any and all circumstances known in the microbiological art and **without exception**, requires some proof in support thereof. Since the Examiner has failed to provide any such proof, this reference cannot be held to anticipate the claimed invention.

It appears as though the Examiner has attempted to base his conclusion of anticipation on an inherency theory, i.e., that the culture medium inherently contains neither particulate matter nor bacteria because it is automatically sterilized prior to inoculation. The problem with this, however, is that even in the context of inherency, facts must be provided in support thereof, for it is extremely well settled that the initial burden of establishing a prima facie basis to deny patentability rests upon the Examiner. An Examiner, if relying upon a theory of inherency, must therefore provide a basis in fact to

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reasonably support a determination that an allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. See, In re Levy, 17 USPQ2d 1461 (Bd. Pat. App. & Inter. 1990).

Secondly, even if the Examiner could prove that culture mediums are, **without exception**, always sterilized prior to inoculation, it must also be shown that this sterilization step also results in substantially all of the free particulate matter present in the biotin also being removed. It is unclear to Appellant how a sterilization step might result in the elimination of particulate matter present in the biotin. Nevertheless, in the absence of any proof in support of this contention, this too amounts to nothing more than mere speculation on the part of the Examiner.

Finally, Appellant had also previously argued that whereas the presently claimed fermentation medium **requires** the presence of biotin, a source of phosphate and at least one metal component, in said fermentation medium, the Shirai reference teaches the use of **all** of these components as being **merely optional**. As a result, since this reference fails to **require** the presence of biotin, a source of phosphate and at least one metal component, in its fermentation medium, it cannot serve to anticipate the claimed invention, on the grounds that each and every element of the claimed invention is not disclosed by the prior art reference.

In response thereto, the Examiner countered with the argument that Shirai disclosed a chelating agent and antifoam agent as components of their culture composition, citing col. 6, lines 1 and 31, and then went on to state, "...even though their statement might seem that these components are optional in their culture medium." See, *Paper No. 14*, page 3.

Appellant respectfully submits that neither the Examiner's statement, nor the logic behind it, make any sense to Appellant. Nevertheless, in response thereto Appellant would like to note that it is well settled that an anticipatory reference must clearly and unequivocally disclose the claimed invention or direct those skilled in the art to the claimed

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invention without any need for picking, choosing, and combining various disclosures not directly related to each other by the teachings of the reference. See, In re Arkley, 172 USPQ 524, 526 (CCPA 1972). It is clear that based on this reference's disclosure, a significant amount of picking and choosing would need to occur prior to one of ordinary skill in the art arriving at the claimed invention. Consequently, for this reason as well, the Shirai reference is believed by Appellant to fail to anticipate the claimed invention.

SUMMARY

The Shirai reference fails to anticipate the claimed invention because it fails to disclose each and every element thereof.

It is requested for the reasons given above, that the Board find for Appellant on all of the issues, and reverse the Examiner's Final Rejections.

Respectfully submitted,



Steven J. Trzaska
(Reg. No. 36,296)
Attorney for Applicant(s)
(610) 278-4929

Cognis Corporation
2500 Renaissance Blvd., St. 200
Gulph Mills, PA 19406

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Enc. Appendix

APPENDIX

CLAIMS ON APPEAL

1. A fermentation medium comprising:
 - (a) a source of metabolizable carbon and energy;
 - (b) a source of inorganic nitrogen;
 - (c) a source of phosphate;
 - (d) at least one metal selected from the group consisting of an alkali metal, an alkaline earth metal, transition metals, and mixtures thereof; and
 - (e) a source of biotin, substantially free of particulate matter and bacteria.
2. The medium of claim 1 wherein the source of metabolizable carbon and energy is glucose.
3. The medium of claim 1 wherein the source of inorganic nitrogen is ammonium sulfate.
6. The medium of claim 1 wherein the source of phosphate is potassium phosphate.
7. The medium of claim 1 wherein the metal is calcium.
10. The medium of claim 1 further comprising an antifoam agent.
11. The medium of claim 1 further comprising a chelating agent.
12. The medium of claim 1 further comprising at least one trace metal.